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EXAMINER

LU, ZHIYU

ART UNIT	PAPER NUMBER
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2618

DATE MAILED: 08/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/607,235	Applicant(s) TANAKA, SHINGO	
	Examiner Zhiyu Lu	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 13 and 17 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase “and to control the transmission unit to interrupt the first transmission and to start the second transmission when the transmission unit completes transmitting the data having the first identification information corresponding to the second identification information of the command” in claim 1 is conflicting. If the transmission unit completes transmitting the data, then there would be no interruption on the first transmission.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 8-9, 13, 15, 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mochizuki (JP09-190306).

Regarding claim 1, Mochizuki teaches a transmission apparatus (100 of Fig. 1) comprising:

a transmission unit (150 of Fig. 2) configured to transmit one of data having a first identification information and a command having a second identification information for identifying data corresponding to the command (each transmission inherently has its own identification);

Mochizuki also discloses that the control command is sent to the printer in preference to the image data (abstract: solution), which would have been obvious to one of ordinary skill in the art to recognize that the command have the identification for identifying the data corresponding to the command, so that the transmission unit and printer can recognize what data the command refers to.

an input unit (131 of Fig. 1) configured to input one of a first instruction to transmit the data and a second instruction to transmit the command (Fig. 2);

a first control unit (111 of Fig. 2) configured to control the transmission unit to start a first transmission of the data when the input unit inputs the first instruction (Fig. 2); and

a second control unit (112b of Fig. 2) configured to control the transmission unit to start a second transmission of the command when the input unit inputs the second instruction and the transmission unit is not transmitting the data (paragraphs 0038, where command would be transmitted first), to control the transmission unit to not start the second transmission when the

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transmission unit is transmitting the data having the first identification information corresponding to the second identification information of the command (paragraphs 0019-0020, where no command is sent if the user does not desire to), and to control the transmission unit to interrupt the first transmission and to start the second transmission when the transmission unit completes transmitting the data having the first identification information corresponding to the second identification information of the command (Fig. 4, paragraphs 0041-0044).

In the cited paragraphs, Mochizuki discloses that control command has a higher priority over data in transmission unit, and yet user decides to send command or not. In process, data from image data generation section (112a of Fig. 2) has to pass spooler field (113 of Fig. 2) before entering transmission unit (150 of Fig. 2) while control command from control section (112b of Fig. 2) direct entering transmission unit, which makes control command is processed faster than image data. Also, not only higher transmission priority is given to command transmission unit over data in transmission unit (150 of Fig. 2), but control section also sends command to hold data in spooler filed (paragraph 0043) at the same time. Thus, input of second transmission of command transmission interrupts first transmission of data transmission (paragraph 0038).

Regarding claim 13, Mochizuki teaches a transmission method by applying explanation to claim 1 above.

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Regarding claim 17, Mochizuki teaches a computer program product configured to store program instructions for execution on a computer system enabling the computer system to perform the method explained in claim 13 above.

Regarding claims 3, 15, and 19, Mochizuki teaches the limitation of claim 1.

Mochizuki also teaches further comprising a third control unit configured to control the transmission unit to sequentially transmit a plurality of data items of the data (paragraphs 0002-0004).

Regarding claim 8, Mochizuki teaches the limitation of claim 1.

Mochizuki also teaches the data being image data (abstract).

Regarding claim 9, Mochizuki teaches the limitation of claim 8.

Mochizuki also teaches the input unit inputs designation of to-be-transmitted image data of the image data (inherent), where printer driver (112 of Fig. 1) is initiated by application (111 of Fig. 1).

4. Claims 2, 4-6, 14, 16, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mochizuki (JP09-190306) in view of Kondo et al. (JP10-098605).

Regarding claims 2, 14, and 18, Mochizuki teaches the limitations of claims 1, 13, and 17.

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But, Mochizuki does not expressly disclose further comprising a third control unit configured to control the transmission unit to resume the first transmission interrupted by the second control unit, the first transmission interrupted being restarted after the command has been transmitted.

Kondo et al. teach further comprising a third control unit configured to control the transmission unit to resume the first transmission interrupted by the second control unit, the first transmission interrupted being restarted after the command has been transmitted (Fig. 4, paragraphs 0033-0034).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate resuming previous transmission after interruption is gone taught by Kondo et al. into the apparatus, method, and program of Mochizuki, in order to automatically complete unfinished transmission.

Regarding claims 4, 16, and 20, Mochizuki teaches the limitations of claims 1, 13, and 17.

But, Mochizuki does not expressly disclose when the input unit inputs the second instruction and the transmission unit is transmitting the data having the first identification information corresponding to the second identification information of the command, the second control unit determines whether or not the first transmission should be interrupted, the second control unit controlling the transmission unit to start the second transmission after the first transmission is completed if the second control unit determines that the first transmission should be uninterrupted.

Kondo et al. teach when the input unit inputs the second instruction and the transmission unit transmits the data, the second control unit determines whether or not the first transmission should

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be interrupted, the second control unit controlling the transmission unit to start the second transmission after the first transmission is completed if the second control unit determines that the first transmission should be uninterrupted (Fig. 4, paragraphs 31-32).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate means to determine whether the first transmission should be interrupted taught by Kondo et al. into the apparatus, method, and program of Mochizuki, in order to determine transmission priority.

Regarding claim 5, Mochizuki and Kondo et al. teach the limitation of claim 4.

Kondo et al. also teach when the input unit inputs the second instruction and the transmission unit is transmitting the data having the first identification information corresponding to the second identification information of the command, the second control unit determines whether or not the first transmission should be interrupted, the second control unit determining that the first transmission should be interrupted if a value obtained by dividing an amount of transmitted part of the data by an entire amount of the data is less than a threshold value, the second control unit also determining that the first transmission should be uninterrupted if the value obtained is not less than the threshold value (paragraph 0052).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate means to determine interruption based on transmitted percentage taught by Kondo et al. into the apparatus of Mochizuki, in order to utilize efficient priority transmission on percentage scale.

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Regarding claim 6, Mochizuki and Kondo et al. teach the limitation of claim 4.

Kondo et al. also teach when the input unit inputs the second instruction and the transmission unit is transmitting the data having the first identification information corresponding to the second identification information of the command, the second control unit determines whether or not the first transmission should be interrupted, the second control unit determining that the first transmission should be interrupted if an estimated period of time for completing the first transmission is not less than a threshold value, the second control unit also determining that the first transmission should be uninterrupted if the estimated period is less than the threshold value (Fig. 5, paragraphs 0035-0042).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate means to determine interruption based on remaining transmission time taught by Kondo et al. into the apparatus of Mochizuki, in order to utilize efficient priority transmission on time scale.

5. Claims 7 and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mochizuki (JP09-190306) in view of Yamaguchi et al. (US2002/0101443).

Regarding claim 7, Mochizuki teaches the limitation of claim 1.

But, Mochizuki does not expressly disclose the transmission unit utilizes a radio communication technique called Bluetooth (registered trademark).

Yamaguchi et al. teaches the transmission unit utilizes a radio communication technique called Bluetooth (paragraph 0024).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Bluetooth transmission taught by Yamaguchi et al. into the apparatus of Mochizuki, in order to utilize wireless communication link.

Regarding claim 10, Mochizuki teaches the limitation of claim 8.

But, Mochizuki does not expressly disclose the command includes an image display command used to command the receiving apparatus to display an image of first image data included in the image data already transmitted to the receiving apparatus.

Yamaguchi et al. teach the command includes an image display command used to command the receiving apparatus to display an image of first image data included in the image data already transmitted to the receiving apparatus (abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made incorporate commanding display unit to display received image data taught by Yamaguchi et al. into the apparatus of Mochizuki, in order to shorten display wait time.

Regarding claim 11, Mochizuki and Yamaguchi et al. teach the limitation of claim 10.

Yamaguchi et al. also teach the input unit designates the first image data to display the image by the image display command when inputting an instruction to transmit the image display command (abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate designating appropriate image to be displayed in the display command

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taught by Yamaguchi et al. into the apparatus of Mochizuki, in order to command the display unit to display the appointed image.

Regarding claim 12, Mochizuki teaches the limitation of claim 1.

Yamaguchi et al. also teach using Bluetooth communication method between the commanding unit and display unit (paragraph 0024), which inherently teaches the limitation of further comprising a transfer unit configured to transfer the image data based on an Initiator function of Remote Display feature incorporated in Basic Imaging Profile of Bluetooth (registered trademark), transmission of the image data, transmission of the image display command and interruption of the transmission of the image data being performed, using a PutImage function incorporated in the Profile, a Remote Display function incorporated in the Profile, and an Abort operation incorporated in Generic Object Exchange Profile, respectively.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate using Bluetooth communication and its profiles taught by Yamaguchi et al. into the apparatus of Mochizuki, in order to efficiently utilize Bluetooth wireless communication for image data and command transmission.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zhiyu Lu whose telephone number is (571) 272-2837. The examiner can normally be reached on Weekdays: 9AM-5PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vuong Quochien can be reached on (571) 272-7902. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Zhiyu Lu
August 5, 2006



 8/7/06

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PRIMARY EXAMINER